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APPLICATION FOR LETTERS PATENT

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**ELECTRONIC PROPERTY VIEWING SYSTEM FOR
PROVIDING VIRTUAL TOURS VIA A PUBLIC
COMMUNICATIONS NETWORK, AND A METHOD
OF EXCHANGING THE SAME**

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2 **ELECTRONIC PROPERTY VIEWING SYSTEM FOR PROVIDING**
3 **VIRTUAL TOURS VIA A PUBLIC COMMUNICATIONS NETWORK,**
4 **AND A METHOD OF EXCHANGING THE SAME**

5 **TECHNICAL FIELD**

6 This invention pertains an electronic property viewing system for
7 providing virtual property tours through a public communications network,
8 the system allowing consumers to tour real and personal property, and
9 wherein affiliates themselves may independently access, input and edit the
10 property tour data sets and photographs.

11 **REFERENCE TO MICROFICHE INDEX**

12 Pursuant to 37 C.F.R. 1.96, this specification includes a microfiche
13 appendix which is filed herewith, comprising two microfiche cards, labeled
14 as appendix electronic property viewing system 1 of 2, and appendix
15 electronic property viewing system 2 of 2. The microfiche contains eighty
16 five pages of computer source code comprising one embodiment of the
17 computer readable instructions which may be used to practice an
18 embodiment of this invention, and which are hereby incorporated into this
19 specification by this reference.

BACKGROUND OF THE INVENTION

The more recent acceptance and use of public communications networks such as the internet, has provided a network or system through which the viewing of both real and personal property may be accomplished in a much more efficient and desirable way than has ever previously been provided or available. The increased ability to handle larger amounts of data and information over the internet has further allowed more graphical images to be presented to the viewer, which facilitates much more effective presentations or tours to users of the internet.

While there have been prior attempts to make available the viewing of still photographs of property over the internet, the prior systems have typically required that a photographer be hired on behalf of the company providing the website, who must go to the property to take photographs. The website company then posted the one or more still photographs on the website, and later input text describing the still photographs.

These prior systems therefore have a relatively high cost in the commercial creation of the photographs, and then in their placement on the website of the website company. The prior systems also took an unjustifiably long amount of time before the photographs of the property were available to viewers or potential purchasers.

1 It is therefore an object of an embodiment of this invention to
2 provide a property viewing system wherein affiliates, such as real estate
3 agents or property owners (in the real estate embodiments of this invention),
4 property managers (in the rental property embodiments of this invention),
5 or the property management companies & owners (in the vacation rental or
6 room rental embodiments of this invention), may take their own
7 photographs and upload the images along with the desired data sets to the
8 website, thereby constructing their own virtual tour which would be
9 available immediately or in real-time.

10 In the typical prior systems the viewer accessing a property viewing
11 website over the internet would find one or more photographs on the first
12 page for that property unit, but typically must then move from new page
13 to new page in order to view the plurality of photographs of the property.
14 In order to go back to a prior view of the property to look at it a second
15 time and to look at other pages which contain other photographs of the
16 property, the user must typically click on the back button on his internet
17 browser. Requiring a user to continually go back to the start page for a
18 series of photographs or images makes the tour more tedious and less
19 desirable for the user. This becomes a relatively slow process and does not
20 provide a sufficiently easy or desirable virtual tour of the property.
21

1 It is therefore an object of an embodiment of this invention to
2 provide a property viewing system in which the viewer may take a virtual
3 tour of property while staying on the same reference page, and further
4 which provides the index, tabs or other selection means to directly go to
5 each of the other multiple views of the property from the same page.
6 Some of the embodiments of this invention have the advantage of providing
7 a tab system which allows the user to view or access any one of the tour
8 views or pages from any one of the tour views or pages, significantly
9 reducing the amount of time to take a complete virtual tour, and making it
10 more pleasing to the consumer.

11 In most property viewing situations, merely providing small single
12 shot still photographs does not make the best presentation of the property
13 being viewed. It is much more desirable to provide larger photographs,
14 panorama photographs or movable photographs, which allow the potential
15 customer or viewer to see a more complete view of the property, and to
16 control the movement of the photograph or the view of the property.
17 Providing panorama photographs also gives the viewer more of a feeling or
18 belief that he or she is actually taking a tour of the property, and turning
19 their head or looking around the property unit, as opposed to merely
20 looking at a still photograph.

1 A feature of one embodiment of this invention therefore provides a
2 virtual property viewing or tour system, which provides one or more
3 panorama or movable photographs. Text and/or still photographs may be
4 combined with the movable photographs as part of the same virtual tour.

5 There are numerous different embodiments for which this invention
6 may be used, such as without limitation, providing virtual tours of real
7 property for sale or lease, virtual tours of vacation properties and virtual
8 tours of vehicles, virtual tours of art or museums using movable
9 photographs; to name but a few examples.
10

11 ~~There is not currently a sufficiently versatile website which contains~~
12 a virtual tour of real property, with options of having a movable photograph
13 with a three hundred sixty degree range, a movable photograph having less
14 than a three hundred sixty degree range, and still photographs, in the same
15 virtual tour. With the varying types of photographs and photographic
16 capabilities of affiliates and potential affiliates, this type of flexibility is
17 long overdue. It is therefore an object of this invention and a feature of
18 one embodiment of the invention to provide a virtual tour site which is
19 versatile enough to optionally provide a movable photograph with a three
20 hundred sixty degree range, a movable photograph having less than a three
21 hundred sixty degree range. It is a still further object to provide such a
22 site which additionally provides the option for still photographs.
23

BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the invention are described below with reference to the following accompanying drawings:

Figure 1 is a flowchart block diagram overview of the property viewing system in relation to the internet and client computers;

Figure 2 is a process flow diagram of an embodiment a property viewing system as contemplated by this invention;

Figure 3 is a block depiction of a diagram of an embodiment of a start page or home page screen display, as shown more fully in Figures 4A and 4B;

Figure 4A is a partial diagram of the Home Page screen display for one embodiment of the electronic property viewing system contemplated by this invention;

Figure 4B is a partial diagram of the lower portion of the Home Page screen display for the embodiment of the electronic property viewing system contemplated by this invention and shown in Figure 4A;

Figure 5 is a block depiction of a diagram of a Sign Up screen display for an embodiment of the electronic property viewing system contemplated by this invention, wherein new clients or

affiliates, input personal information to create a new account,
and as shown more fully in figures 6A, 6B and 6C;

Figure 6A is a partial diagram of a Sign Up screen display represented in
Figure 5;

Figure 6B is a partial diagram of the sign up screen display represented
in Figure 5;

Figure 6C is a partial diagram of the sign up screen display represented
in Figure 5;

Figure 7 is a block depiction of a diagram of a Login screen display
which may be used in an embodiment of this invention,
wherein existing clients or affiliates input their unique
information such as email address and password, and as shown
more fully in figures 8A and 8B;

Figure 8A is a partial diagram of the login screen display represented in
Figure 7;

Figure 8B is a partial diagram of the login screen display represented in
Figure 7;

Figure 9 is a block depiction of a diagram of a Modify a Tour screen
display which may be used in an embodiment of this invention,
wherein existing affiliates input their unique information such

1 as email address and password, and as shown more fully in
2 figures 10A and 10B;

3 Figure 10A is a partial diagram of the Modify a Tour screen display
4 represented in Figure 9;

5 Figure 10B is a partial diagram of the modify a tour screen display
6 represented in Figure 9;

7 Figure 11 is a block depiction of a diagram of a main tour editing screen
8 display which may be used in an embodiment of this invention,
9 wherein existing clients or affiliates choose in which way to
10 input, access, or update information within their account, as
11 more fully shown in figures 10A and 10B;

12 Figure 12A is a partial diagram of the main tour editing screen display
13 represented in Figure 11;

14 Figure 12B is a partial diagram of the main tour editing screen display
15 represented in Figure 11;

16 Figure 13 is a block depiction of a diagram of the Contact Information
17 screen display which may be used in an embodiment of this
18 invention, wherein the affiliate or agent may input personal,
19 business or advertising data and photographs for their use of
20 the system, as more fully shown in figures 14A, 14B and 14C;

Figure 14A is a partial diagram of the contact information screen display represented in Figure 13;

Figure 14B is a partial diagram of the contact information screen display represented in Figure 13;

Figure 14C is a partial diagram of the contact information screen display represented in Figure 13:

Figure 15 is a block depiction of a diagram of a Tour Counter, or hit counter, screen display which may be used in an embodiment of this invention, wherein the affiliate or agent may obtain information about the number of visits or hits on each of his or her property units for which virtual tours are provided, as more fully shown in figures 16A and 16B;

Figure 16A is a partial diagram of the hit counter screen display represented in Figure 15;

Figure 16B is a partial diagram of the hit counter screen display represented in Figure 15;

Figure 17 is a block depiction of a diagram of a Quick Edit tour display which may be used to allow the agent or affiliates to edit the most commonly changed fields in a given property tour, and

from which open houses or other scheduled items may be
scheduled, as more fully shown in Figure 18A and 18B;

Figure 18A is a partial diagram of the Quick Edit tour screen display
represented in Figure 17;

Figure 18B is a partial diagram of the Quick Edit tour screen display
represented in Figure 17;

Figure 19 is a diagram of a Schedule Open House screen display which
may be used to allow the affiliate to schedule an open house
and thereby notify potential customers as well;

Figure 20 is a diagram of a Schedule Open House screen display wherein
an open house date has been input by the affiliate in the
template containing part of the data set for the property unit;

Figure 21 is a block depiction of a diagram of the Quick Edit tour screen
display with the open house scheduled in Figure 20 teen shown
on the Quick Edit tour screen display;

Figure 22A is a partial diagram of the edited Quick Edit tour screen
display represented in Figure 21;

Figure 22B is a partial diagram of the edited Quick Edit tour screen
display represented in Figure 21;

Figure 23 is a partial diagram of a Terms and Conditions of Use screen
display which may be used in an embodiment of this invention,

1 and a which would be encountered by a user selecting the
2 Create a New Tour menu item from the screen display depicted
3 in Figure 18A (or others with the same menu item selection);
4 Figure 24 is a block depiction of a diagram of a checklist for the
5 creation of a new tour which the affiliate reviews before
6 proceeding to create a new property virtual tour, as more fully
7 shown in figures 25A, 25B and 25C;

8 Figure 25A is a partial diagram of the checklist for the creation of a new
9 tour represented in Figure 24;

10 Figure 25B is a partial diagram of the checklist for the creation of a new
11 tour represented in Figure 24;

12 Figure 25C is a partial diagram of the checklist for the creation of a new
13 tour represented in Figure 24;

14 Figure 26 is a diagram of a "Creating a New Tour" screen display which
15 may be used in an embodiment of this invention, wherein the
16 affiliate inputs basic information to initiate the creation of a
17 new virtual tour within the contemplation of this invention, and
18 after accepting the Terms and Conditions of Use as more fully
19 set forth in Figure 23;

20 Figure 27 is a block depiction of a diagram of the main tour information
21 editing screen display which may be used in an embodiment of

this invention, and which would be encountered by a user desiring to create a new virtual tour or by a user desiring to edit an existing virtual tour, as more fully shown in Figures 28A, 28B and 28C;

Figure 28A is a partial diagram of the main tour information editing screen display represented in Figure 27;

Figure 28B is a partial diagram of the main tour information editing screen display represented in Figure 27;

Figure 28C is a partial diagram of the main tour information editing screen display represented in Figure 27;

Figure 29 is a block depiction of a diagram of the main tour information editing screen display, showing the partial input of property information and further showing the drop-down menu selections for "Property Type", which may be used in an embodiment of this invention, as more fully shown in figures 30A, 30B, and 30C;

Figure 30A is a partial diagram of the main tour information editing screen display represented in Figure 29;

Figure 30B is a partial diagram of the main tour information editing screen display represented in Figure 29;

1 Figure 30C is a partial diagram of the main tour information editing screen
2 display represented in Figure 29;

3 Figure 31 is a block depiction of a diagram of the main tour information
4 editing screen display, showing the partial input of property
5 information and further showing the drop-down menu selections
6 for Property Subtitle, which may be used in an embodiment of
7 this invention, as more fully shown in figures 32A, 32B, and
8 32C;

9 Figure 32A is a partial diagram of the main tour information editing screen
10 display represented in Figure 31;

11 Figure 32B is a partial diagram of the main tour information editing screen
12 display represented in Figure 31;

13 Figure 32C is a partial diagram of the main tour information editing screen
14 display represented in Figure 31;

15 Figure 33 is a block depiction of a diagram of the main tour information
16 editing screen display, showing the drop-down menu selections
17 for the Property Style data to be included in the template,
18 which may be used in an embodiment of this invention, as
19 more fully shown in figures 34A, 34B and 34C:

20 Figure 34A is a partial diagram of the main tour information editing screen
21 display represented in Figure 33;

1 Figure 34B is a partial diagram of the main tour information editing screen
2 display represented in Figure 33;
3 Figure 34C is a partial diagram of the main tour information editing screen
4 display represented in Figure 33;
5 Figure 35 is a block depiction of a diagram of a photograph edit page
6 accessed from the main tour information editing screen by
7 clicking on the picture tab, in an embodiment of this invention,
8 and is more fully shown in Figures 36A, 36B, 36C, 36D and
9 36E;

10 Figure 36A is a partial diagram of the photograph edit page represented in
11 Figure 35;

13 Figure 36B is a partial diagram of the photograph edit page represented in
14 Figure 35;

15 Figure 36C is a partial diagram of the photograph edit page represented in
16 Figure 35;

17 Figure 36D is a partial diagram of the photograph edit page represented in
18 Figure 35;

19 Figure 36E is a partial diagram of the photograph edit page represented in
20 Figure 35;

21 Figure 37 is a pop-up window which is encountered when selecting the
22 photograph name tab by selecting or clicking on the Photo

1 Name tab, and allows the affiliate to choose from pre-selected
2 names to use for photographs;

3 Figure 38 is an Upload Photo screen display which is encountered when
4 selecting or clicking on the Upload Photo box just below where
5 the photograph window will appear;

6 Figure 39 is a Tune Photo screen display which is provided via a pop-up
7 window and which allows the user to edit certain attributes of
8 a photograph;

9 Figure 40 is a block depiction of the main tour information editing screen
10 display as reflected in Figure 27, wherein the drop-down menu
11 for number of photographs has been selected, as more fully
12 shown in Figures 41A and 41B;

13 Figure 41A is a partial diagram of the main tour information editing screen
14 display represented in Figure 40;

15 Figure 41B is a partial diagram of the main tour information editing screen
16 display represented in Figure 40;

17 Figure 42 is a block depiction of a brochure information editing screen
18 display which provides the affiliate with three different
19 brochure options which may be selected, as well as data boxes
20 for the entry of data for inclusion in the data set for the
21
22

1 brochure or brochures chosen, as more fully shown in Figures
2 43A and 43B;

3 Figure 43A is a partial diagram of the brochure edit screen display
4 represented in Figure 42;

5 Figure 43B is a partial diagram of the brochure edit screen display
6 represented in Figure 42;

7 Figure 44 is a block depiction of a screen display containing a first
8 brochure created as the virtual tour was created, as more fully
9 shown in Figures 45A and 45B;

10 Figure 45A is a partial diagram of the first brochure screen display
11 represented in Figure 44;

12 Figure 45B is a partial diagram of the first brochure screen display
13 represented in Figure 44;

14 Figure 46 is a block depiction of a screen display containing a second
15 brochure, as more fully shown in Figures 47A and 47B;

16 Figure 47A is a partial diagram of the second brochure screen display
17 represented in Figure 46;

18 Figure 47B is a partial diagram of the second brochure screen display
19 represented in Figure 46;

20 Figure 48 is a block depiction of a screen display containing a third
21 brochure option, as more fully shown in Figures 49A and 49B;
22

Figure 49A is a partial diagram of the third brochure screen display represented in Figure 48;

Figure 49B is a partial diagram of the third brochure screen display represented in Figure 48;

Figure 50 is a block depiction of a diagram of the purchase screen display wherein the affiliate initiates the purchase of the virtual tour, selects advertising and methods of providing data or photographs, as more fully shown in Figures 51A and 51B;

Figure 51A is a partial diagram of the purchase screen display represented in Figure 50;

Figure 51B is a partial diagram of the purchase screen display represented in Figure 50;

Figure 52 illustrates an embodiment of a Tour Invoice screen display which may be printed by the affiliate, and which provides basic information regarding the tour, as more fully shown in Figures 53A, 53B and 53C;

Figure 53A is a partial diagram of the Tour Invoice screen display represented in Figure 52;

Figure 53B is a partial diagram of the Tour Invoice screen display represented in Figure 52:

Figure 53C is a partial diagram of the Tour Invoice screen display represented in Figure 52;

Figure 54 is a figurative illustration of one way to provide a movable photograph as part of a virtual tour contemplated by an embodiment of this invention;

Figure 55 is a representation of a panoramic photograph which has been stitched or spliced, and which shows the relative area of the viewing window to the entire panoramic photograph;

Figure 56 is a diagram showing how locating the computer mouse pointer causes the movable photograph to move;

Figure 57 is an embodiment of a screen display which would preferably be used as a first page in a virtual tour, within the contemplation of this invention:

Figure 58 is an embodiment of a screen display which may be used as a page or display in a virtual tour, within the contemplation of this invention:

Figure 59 is an embodiment of a screen display which may be used as a page in a virtual tour, within the contemplation of this invention, figuratively illustrating a movable photograph:

1 Figure 60 is an embodiment of a screen display which may be used as
2 a page in a virtual tour. within the contemplation of this
3 invention;

4 Figure 61 is a block diagram illustrating the exchange of time units in
5 consideration for a virtual tour posting on a website;

6 Figure 62 is a pop-up window screen display of an Insert Photo which is
7 prompted by selecting or clicking on the Upload Photo buttons
8 described herein, giving the affiliate the option to either
9 directly upload the photograph or to email it as an attachment
10 to the virtual tour web site;

11 Figure 63 is a pop-up window screen display of an Pick a Photo which
12 is prompted by selecting or clicking on the Email a Photo
13 button shown in Figure 62;

14 Figure 64 is a pop-up window screen display of a second Pick a Photo
15 screen which is prompted by selecting the "Pick an E-mailed
16 Photo" button in Figure 63; and

17 Figure 65 is a pop-up window screen display of a Panorama Mode page
18 wherein the affiliate must identify the nature of the photograph
19 selected.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Reference will now be made to a preferred embodiment of the Applicants' invention. One exemplary implementation is described below and depicted with reference to the drawings comprising an electronic property virtual tour system for use on a public network such as the internet. While the invention is described via a preferred embodiment, it is understood that the description is not intended to limit the invention to this embodiment, but is intended to cover equivalents and modifications such as are included within the scope of the appended claims.

Further, due to the nature of the level of skill in the art, there may be various menu items, explanatory text, buttons, menus, routines, subroutines, source code, display configurations which are known or may readily be duplicated by known programming means by one skilled in the art, and they will not therefore be described in significant detail.

The term photograph as used herein is used in a broader sense than its normal definition, to include without limitation, traditional photographs, photographic images, digital photographs, electronic depictions of photographs, video taped segments, digitized photographs, digital and manipulated photographs, and any other image which is derived from, or based on, a photograph.

1 The term "movable photograph" as used herein means a photograph,
2 as defined above, and which is caused to move or appear to move within
3 the viewer window, to allow more of the photograph to be seen than is
4 shown in the viewer window. In this case if a given photograph is larger
5 than the viewer photograph window, it may be designated as such when
6 being input, and it is the selection during input that determines whether the
7 embodiment of this invention, creates a movable photograph or picture,
8 versus a still photograph.

9
10 The term panorama or panoramic as used herein in connection with
11 photographs, in addition to its traditional definitions, is used herein for
12 photographs which are larger than the viewer photograph window (either
13 vertically or horizontally), which is typically measured in pixels.

14 The term "affiliate" as used herein is intended to broadly apply to any
15 person or entity authorized to create or modify virtual tours of property
16 units, examples of which for various embodiments of this invention,
17 including without limitation: real estate agents listing real property and
18 rental/lease property; resorts; property managers; sellers of vehicles;
19 hotel owners; travel agents; travel promoters; chambers of commerce;
20 visitors bureaus; and others.

21 The term "property" or "property unit" as used herein is intended to
22 cover not only what is traditionally considered real property, but also,
23

1 without limitation, time share interests, condominium interests, motel rooms,
2 hotel rooms, resorts, golf courses, and bed and breakfast facilities, to name
3 but a few. The term property unit also includes all types and kinds of
4 personal property such as, without limitation, automobiles, trucks,
5 recreational vehicles, airplanes, artwork, to name just a few.

6 The term "template" as used herein in relation to the format of a
7 virtual tour of a given screen display is used in a broad sense to include
8 a form, framework, report form, format or other electronic or screen display
9 structure for the input, editing or presentation of a virtual tour.

10 While the preferred embodiment is described and used in connection
11 with the internet and the world wide web, the term communications network
12 or public communications network as used herein is meant in its broadest
13 sense to include these and all other current and future communication
14 networks, including public packet switched communications networks, and
15 the current or future internet.

16 Figure 1 illustrates a preferred embodiment of Applicants' invention
17 wherein a basic system configuration is provided for an electronic property
18 virtual tour system for use on a public communications network, which is
19 identified as reference numeral 100. An online network 102 is provided in
20 one form as the internet 104, and more particularly as the World Wide Web
21 (WWW). Network 102 is part of a network environment, or networked
22

computer system 108. Networked computer system 108 includes a web server computer 110, one or more client or host computers 112, and an online network 102. Client computers 112 would typically have a web browser 114 and may also include a web document 116.

It will be appreciated by those skilled in the art that the web server 110 illustrated may be one or more such servers connected by known means local or remote from one another.

There will further be one or more affiliate computers 117, which would be connected to the internet 104 and through which the affiliate may create or edit virtual tours.

In an embodiment of this invention, the affiliate may have his or her own website which is accessed over the internet by clients or prospective clients of affiliate (or potential purchasers/lessees of the property units).

Figure 1 illustrates an affiliate server computer 800, affiliate web server 801, affiliate website 802, affiliate webpage 803 and affiliate property unit listings 804, all of which are connected to the public communications network, which in this embodiment is the internet.

A feature of one embodiment of this property viewing system to affiliates is that customers who visit the affiliate's web site 802 will be returned to that web site after viewing the virtual tour selected from the affiliates site. For instance, a potential client of the affiliates may be

1 viewing a list of property units on the affiliates's web site 802 and click
2 on a particular property unit to see a virtual tour. This will link the client
3 to web site 122 where the one or more memory areas store the virtual
4 tour. The one or more memory areas may also be located on linked or
5 electronically connected computers, sites or memory areas, and they need not
6 be physically near one another.

7 Once done with the virtual tour, the client may select or click on the
8 Back to Your List button 851 or link (shown on the sample tour illustrated
9 in Figure 57, and others); and be returned to the affiliates web site without
10 the need to repetitiously hit the back button of the client's internet browser.

11 More particularly, Web server computer 110 is a hardware component
12 that serves codes and data to the WWW. Web server computer 110
13 includes a web server 118 comprising a software program that receives,
14 manages, and responds to client requests for web documents and files. Web
15 server 118 includes a central electronic property viewing system 120 in
16 which a virtual property tour may be viewed by client computers 112. The
17 virtual tour is carried out pursuant to the electronic property viewing system
18 100.
19

20 Website 120 includes web page 122 and virtual property tour memory
21 area 124. Web page 122 comprises a unit of information in a form of a
22 data unit, that may include text and/or graphics. The unit of data or data
23

1 unit is presented on a screen out of client computer 112 to a user, such as
2 to an individual searching for property or desiring to virtually tour real or
3 personal property.

4 Individual web pages are active and may include buttons, icons and/or
5 links, which are all well known in the art and which will be referred to
6 herein as triggers. Triggers enable the launching of application software
7 programs and/or access or links to other pages. Virtual property tour
8 memory area 124 comprises the collective memory area allocated for part
9 or all of property unit data sets, on the web server computer 110.
10

11 The term memory areas as used herein is intended to cover any area
12 with temporary or permanent memory capabilities, including any memory
13 storage mediums, such as a computer hard drives, disks, data storage
14 devices, and others as set forth below.

15 For purposes of this disclosure, it is understood that memory generally
16 refers to a data storage device resident within or associated with a
17 computer, such as a random access memory (RAM). As utilized herein,
18 memory is intended to refer to any form of storage medium associated with
19 a computer, such as a data storage device, and including hard disk drives
20 (HDDs), semiconductor memories and addressable storage spaces present
21 within a processing unit or other internal storage devices that are used to
22 execute instructions and/or store data and addresses, or any other form of
23

1 memory as presently understood within the art, or which may later be
2 developed. Furthermore, it is understood that memory can be physically
3 subdivided into units such as a first memory area, a second memory area,
4 and a third memory area. Such units are not necessarily physically
5 associated, but can be associated via the ability to address and/or locate
6 such memory areas.

7 As shown in Figure 1, it is understood that client computer 112 is
8 a general-purpose machine that processes data via a set of instructions that
9 is stored in a data storage device, such as memory or a memory area. The
10 computer-server-components-comprise hardware on which one or more
11 software programs are implemented.

12 The typical hardware includes a processor or microprocessor; a hard
13 disk drive; screen displays; input devices such as a keyboard and/or a
14 mouse; and other associate components which are well understood and
15 known in the art.

16 Additionally, Web server computer 110 includes hardware such as one
17 or more processors, or microprocessor; one or more data storage devices,
18 such as a hard disk drive ("HDD"); memory, such as random access
19 memory ("RAM"); and an interface device, such as a display, a keyboard
20 and/or a mouse.

According to one implementation of Applicants' invention, web server computer 110 comprises two servers which are identical in hardware, each machine having 300MHz Intel Pentium II processors, 256MB of 100MHzRAM, and a 13GB IDE hard drive. Both machines are running Windows NT4.0 (with the service pack 5 update). One server is the data warehouse server (includes memory area), and it has Microsoft SQL 6.5 installed thereon. The second server is the web server (includes memory area), which is running Microsoft Internet Information Server (IIS) 4.0, and a host of third party add-ons (server objects), including: SA-Fileup, v2.0.3.8 by Software Artisans, AspNet, v3.0.2 by ServerObjects.com, AspImage, v1.9 by ServerObjects.com, AspHTTP, v3.0.2 by ServerObjects.com, AspInet, v2.0 by ServerObjects.com, ImgSize, v1.1.1 by ServerObjects.com and Counter, and v5.2 by Henn Saar.

A variety of programming languages are used in this system. For server-side processing, Microsoft's Active Server Pages (ASP) is used, and is included in the Microsoft Internet Information Server. For client side technologies, HTML, DHTML, Java (applets) and JavaScript are utilized. It will be appreciated by those skilled in the art that the foregoing is to disclose the preferred embodiment, and that there would be numerous alternatives and combinations of alternatives available.

1 Figure 2 is a process flow diagram of one embodiment of a property
2 viewing system as contemplated by this invention, and which is an
3 embodiment for application over the internet. Step P1 is a representative
4 home page for which an exemplary home page for an internet embodiment
5 is shown more fully in Figures 3, 4A and 4B. Step P2 is a Log-in screen
6 display for authorized users or affiliates to enter personal data to gain
7 access to the input, or editing portion of the viewing system. Figures 7,
8 8A and 8B illustrate an internet embodiment of step P2.

9
10 Step P3 is a Sign-Up screen display for persons who are not yet
11 authorized to access, create and/or edit the viewing system. Figures 5, 6A,
12 6B and 6C show a representative internet embodiment screen display
13 representing step P3.

14 An affiliate or a potential affiliate would typically access the home
15 page of the virtual tour service provider. In order for the affiliate to
16 proceed to access, create or edit virtual tours, he or she would choose step
17 P2 or step P3 to either log in if he or she is already an authorized user,
18 choose step P3 to sign up and thereby become authorized to enter step P4.

19 Step P4 is the main tours editing screen display, and an internet
20 embodiment of step P4 is illustrated in Figures 9, 10A and 10B.

21 From step P4, the affiliate may review a Tour Hit Counter screen
22 display, represented by step P5, and an internet embodiment of which is

more fully illustrated in Figures 15, 16A and 16B, which allows the affiliate to ascertain the number of times each of the listed virtual tours has been accessed.

Also from the main tour editing screen display, the affiliate may enter affiliate contact information via step P6. An internet embodiment of step P6 is more fully illustrated in Figures 13, 14A, 14B and 14C.

As can be seen at step P6, the Contact Information screen display, at this point an affiliate may choose to upload company logo 1 (step P7), upload company logo 2 (step P8), or provide the data which will comprise the contact information within step P6. The contact information data may include a photograph of the affiliate or affiliates, as represented by step P9.

As will be seen below from the feature of this invention which creates electronic property unit brochures, the company logo which may be entered in step P7 or step P8 may be chosen based upon the desired result in the various styles of brochures, which may be created concurrently with the virtual tour. At step P9, the affiliate may upload photographs which would then appear in the virtual tour and on brochures created concurrently with the virtual tour.

From the main tour editing screen display, step P4, the affiliate may choose to perform quick editing of an existing virtual tour that he or she already has on the site, and representative step P10 provides a Quick Edit

1 Tour screen display, and an internet embodiment of this invention as
2 illustrated in Figures 17, 18A and 18B. The quick edit feature allows the
3 affiliate to manipulate the most commonly changed fields in a listing and
4 also to schedule various items, such as an open house for instance, if it is
5 a real property sale virtual tour. In the event an affiliate wishes to
6 schedule an open house in that embodiment, he or she proceeds to step P11,
7 which represents a Schedule Open House screen display, as more fully
8 illustrated in Figure 19.

9
10 Figure 20 illustrates a part of the template for the entry of open
house data within step P11, and as shown more fully in Figures 21, 22A
11 and 22B. The resulting screen display illustrates the edit or change to the
12 Quick Edit tour screen display after step P11 is followed and an open house
13 is scheduled.

14
15 If the affiliate desires to proceed to Step P12, which is a tour
16 information editing screen display to create a new tour, he or she would
17 proceed to such step but would be interrupted by a pop-up window which
18 would contain the Terms and Conditions of Use for the property viewing
19 system, which is represented by step P13. The Terms and Conditions of
20 use must be accepted before the viewing system will allow the affiliate to
21 proceed to build or create a new tour. Step P13 is more fully illustrated
22 in Figure 23.
23

1 An affiliate desiring to create a new virtual tour should have the
2 requisite information or data ready for input before proceeding to create a
3 tour, and this system provides the affiliate a checklist of the requisite data
4 required for input. The checklist may be provided at multiple locations,
5 such as just after the affiliate has accepted the Terms and Conditions of
6 Use (step P13). If the checklist is provided at that point, it would be step
7 P14. An internet embodiment screen display for step P14 is illustrated in
8 Figures 24, 25A, 25B and 25C. It is at this step that the affiliate is
9 reminded of the information which needs to be input to create a virtual
10 tour, as well as the decisions that must be made once he or she proceeds
11 to step P14. This checklist may alternatively be provided at step P2 or P3,
12 as shown in Figure 8B by selecting the "click here for a list of things you
13 will need to build a new tour" button or selection.
14

15 Figure 2 further illustrates step P12 being a tour information editing
16 screen display, an internet embodiment of which is more fully shown in
17 Figures 27, 28A, 28B and 28C. This is the main tour creation and editing
18 screen for creating and editing virtual tours of property units.

19 Figure 2 further illustrates step P23, which is a main pictures and text
20 editing screen which is encountered when selecting or clicking on the
21 pictures tab to create or edit existing pictures for a virtual tour. An
22

1 internet embodiment of step P23 is more fully reflected in Figures 35 and
2 36A through 36E.

3 From step P23, the affiliate may choose step P22 which is the Upload
4 Photo screen display, as shown more fully in Figure 38.

5 Step P16 is a step which involves a pop-up window which appears
6 when the affiliate selects the photo name by clicking on it. The pop-up
7 window provides a list of pre-selected photograph names to choose from in
8 labeling the uploaded photograph, and is more fully illustrated in Figure 37
9 and explained below.

10 Step P17 illustrates the brochure information editing screen display
11 step which is more fully shown in Figures 42, 43A and 43B. The brochure
12 information editing screen display then provides three different brochure
13 selections or options, as is more fully shown in Figure 43A. The brochures
14 are more fully illustrated in Figures 44, 45A, 45B, 46, 47A, 47B, 48, 49A,
15 and 49B.

16 Once the virtual tour has been created, there is a Purchase Tour
17 screen display, represented by step P18, which is more fully reflected in
18 Figures 50, 51a and 51b. The affiliate may then proceed to step P19 to
19 print the invoice, or to step P20 to engage in an online transaction, e-
20 commerce, or to step P21 to request the server to bill the affiliate.
21
22
23

1 Figure 3 is a block depiction of an embodiment of a starting page or
2 Home Page screen display for an internet application of this invention,
3 which is shown more fully in Figures 4A and 4B.

4 Figure 4A illustrates a common browser page or outline with the
5 Home Page for a virtual tour site therein. From the Home Page screen
6 display illustrated in Figures 4A and 4B, there are numerous common or
7 known menu selection or options for customer and affiliates. The Home
8 Page screen display provides several buttons which may be selected or
9 clicked on by the mouse pointer to move to other memory areas or pages
10 of the website.

11 Sign-Up Now button 140 retrieves the Sign-Up Now screen display,
12 as more fully illustrated in Figures 5, 6A, 6B and 6C, and described below,
13 which allows a new potential affiliate to sign up and become authorized to
14 modify or build virtual tours. The Build a New Tour button 141 and the
15 Modify a Tour button 142 retrieve the Log-In screen display reflected and
16 more fully explained with respect to Figures 7, 8A, 8B, 9, 10A and 10B.
17 The Click Here to See a Tour button 143 retrieves a sample virtual tour of
18 a property unit, in this example a house offered for sale, which is then
19 available for the user to virtually tour or preview.

20 The Click Here to See a Tour button 143 or link in Figure 4A, when
21 selected or clicked on, presents a pop-up window which gives a preview or
22

sample virtual tour of the property unit, in this embodiment a real property unit. The Tour Examples button 145 retrieves the same sample or preview virtual tour as the Click Here to See a Tour button 143. The Click Here to Build a Tour button 144 or link, takes the affiliate to the Terms and Conditions of Use screen which is described more fully elsewhere herein.

Figures 4A and 4B also present self-explanatory information to affiliates and potential affiliates, such as testimonials, lists of persons who are using the virtual tour in their business, frequently asked questions, and other self-explanatory and sales, customer service related features.

Figure 5 is a block depiction of a Sign-Up screen display wherein new affiliates or clients input their personal information and are required to review and accept the Terms and Conditions of Use in order to gain access to the property viewing system, and in order to be able to create and edit virtual tours of property units. Figures 6A, 6B and 6C illustrate this "Sign Up Now" screen display. Once the personal information 150 is entered and the prospective affiliate selects or clicks on the I Agree to These Terms button 151, the affiliate is then able to proceed to build or modify virtual tours.

If the affiliate chooses the Build a New Tour button 141, the Build a Tour login screen display depicted in Figures 8A and 8B are retrieved. The affiliate then enters his or her e-mail address in box 155 and his or her

1 password in box 156, thereafter clicking login button 157 to gain access to
2 the main tour editing screen.

3 If the affiliate chooses the Modify a Tour button 142 in Figure 4A,
4 he or she will be presented with a screen display reflected in Figures 10A
5 and 10B, which allow him or her to modify an existing tour. The affiliate
6 will then be required to enter his or her e-mail address in box 158,
7 password in box 159 (Figure 10A), and then select or click on the log-in
8 button 160 to gain access to the main tour editing screen. If the affiliate
9 selects or clicks on "Quick Edit" button 166, he or she will be directed to
10 step P10 and Figure 17, as described more fully below.

11 It will be appreciated from viewing the screen displays reflected in
12 Figures 8A and 8B and Figures 10A and 10B, that from this display, the
13 affiliate can choose other selections on the left-most column to enter other
14 parts of the website or other web pages, all of which are known in the art.

15 Once the e-mail address and password are properly entered and
16 accepted, the affiliate is logged in, he or she may be presented with a
17 getting started aid as depicted in Figure 11 and illustrated in Figures 12A
18 and 12B. The e-mail and password information results in the "retrieval of
19 a list of tours" button 160 as reflected in Figure 12A. From the list of
20 tours provides certain information regarding the existing virtual tours that
21 affiliate currently has on the website, in the database or on the system.
22

From the column on the left of the screen display reflected in Figures 12A and 12B, the affiliate is presented with a tour menu 161 which provides certain linking buttons to click on to allow better navigation or maneuvering through the site or to particular virtual tours that the affiliate already has created. Tour menu 161 provides help button 170, contact information button 169, quick edit tours button 162, create a new tour button 163, tour hit counters button 164, and logout button 165.

The left-hand column also provides a list of tours section which provides the affiliate's name and a listing of tours the affiliate already has in-the-viewing system. For example, inactive tour number 100409 in Figure 12A is for a real property unit with an address of 123 Yellowbrick Lane. Selecting or clicking on the listing 167 will allow the affiliate to edit and perform other tasks relative to that particular virtual tour.

Figures 12A and 12B also provide a right-hand column with other helpful information to the affiliate, and this can be changed as desired, and is generally known in the art. Selecting or clicking the Contact Information button 169 allows the affiliate to change contact information and photographs regarding the affiliate, his or her company, and other pertinent information which appears with virtual tours and on brochures. Selecting Contact Information button 169 takes the affiliate to the screen display

reflected in Figures 13, 14A, 14B and 14C, which will be discussed more fully below.

If the affiliate selects the Quick Edit Tours button 162, he or she will be taken to the quick edit tours screen display more fully reflected in Figures 17, 18A and 18B, which will be more fully discussed below. If the affiliate selects or clicks on the Create a New Tour button 163, the affiliate will be returned to the main tours editing screen display, assigned a tour number and provided the template boxes to input data to compose a data set, and to upload photographs if desired.

If the affiliate selects the Tour Hit Counters button 164, the Tour Hit Counters screen display will be retrieved, as shown more fully in Figures 15, 16A and 16B, which will be more fully discussed below. Needless to say, if the affiliate selects or clicks on the logout button 165, he or she will be logged out of the system.

Figure 13 is a block depiction of a diagram of the Contact Information screen display which may be used in an internet embodiment of this invention, wherein the affiliate may input or edit personal, business or advertising data and photographs about the affiliate, such as shown in Figures 14A, 14B and 14C.

The Contact Information screen display further allows the affiliate to upload company logo information and photographs. For instance, in Figure

1 14C the affiliate may upload his or her company logo into logo box 180
2 by selecting or clicking the upload button 181. The affiliate may similarly
3 upload a second company logo into the logo box 182 by selecting or
4 clicking on upload button 183.

5 The affiliate may also upload his or her personal photograph into
6 contact photo box 184 by selecting or clicking upload button 185. Once
7 the affiliate has completed his or her entries into the Contact Information
8 page, the "post changes" button 186 may be selected or clicked to update
9 the database and/or memory area where the information, logos and
10 photographs are stored. ~~Clicking on upload button 181, upload button 183~~
11 or upload button 185 will retrieve and upload a standard windows screen
12 display, an example of which is shown in Figure 38, and which is discussed
13 more fully below.

15 If the affiliate selects "tour hit counters" button 164 shown in Figure
16 12A, it will retrieve a Tour Counters screen display for that affiliate, which
17 provides a list of tours stored in the viewing system and informs the
18 affiliate of the number of hits or visits to that tour per day, as well as the
19 total number of hits, as more fully reflected in Figures 16A and 16B. The
20 hits column 190 and the hits per day column 191 are shown as of the
21 applicable start dates for each of the respective tours of the affiliate shown
22 in Figure 16A.
23

If the affiliate selects the Quick Edit Tours button 162 in Figure 12A, the Quick Edit Tours screen display as reflected in Figures 17, 18A and 18B, will be retrieved. The quick edit tours screen display allows the affiliate to manipulate the most commonly changed fields in a virtual tour, such as the price and the active versus inactive status of the virtual tour.

The Quick Edit Tours screen display also provides an open house column 193 to indicate information regarding an open house on the property unit itself. For instance, as shown in Figure 18A, virtual tour number 100409 has a schedule button 194 which allows the affiliate to select or click on the schedule button 194 to schedule an open house for that property unit. If the affiliate selects schedule button 194, the schedule open house screen display reflected in Figure 19 will be retrieved.

The Schedule Open House screen display illustrated in Figure 19 provides information boxes to input data regarding an open house and provides information box 194 for the last date the open house (the date the system clears the open house scheduled date in Figure 20), information box 195 for the date of an upcoming open house, information box 196 for the name of the host or hostess who will be at the open house. Once the date is entered in the respective information boxes, the affiliate may select the "OK" button 197 to approved the entry of the data into the Quick Edit

1 Tours screen display if any new data has been entered, and to then return
2 to the Quick Edit Tours screen display.

3 Figure 20 reflects that an affiliate has entered a date of April 10,
4 1999 (item 177) into information box 195 to schedule an open house, and
5 Figures 21, 22A and 22B reflect the now scheduled open house in open
6 house column 193, of April 10, 1999 (item 177).

7 The information reflected in Figure 22A for tour number 100409, for
8 an address of 1244 Yellowbrick Lane, reflects the information for one
9 property unit, in this case a real property unit which is a house located on
10 Yellowbrick Lane. Figure 22A further reflects a status column 200 which
11 informs the affiliate of the status of the virtual tour on the viewing system,
12 such as whether the subscription has been paid, and if so the date through
13 which it has been paid, or whether it is expired.
14

15 From the main tours editing screen display, if the affiliate selects the
16 "create a new tour" button 163, the Terms and Conditions of Use screen
17 display reflected in Figure 23 will be retrieved. Before the affiliate will be
18 allowed to create a new virtual tour, the terms and conditions of use must
19 be accepted by selecting "accept" button 201. The affiliate may choose not
20 to proceed to create a virtual tour or choose not to agree to the terms and
21 conditions of use by selecting or clicking on "cancel" button 202.
22
23

1 Figures 24, 25A, 25B and 25C reflect a checklist for tours screen
2 display which informs the affiliate of the information and data that will be
3 required in order to create or build a new virtual tour. The checklist for
4 tours screen display may be retrieved after the affiliate has accepted the
5 terms and conditions of use by selecting the accept button.

6 After the affiliate has accepted the terms and conditions of use, a
7 pop-up window is presented for creating a new tour and requires that the
8 affiliate enter or select certain basic information about the tour to be built
9 or created. Figure 26 reflects the creating a new tour screen display, which
10 is step P14 in Figure 2.

11 In Figure 26, the affiliate selects the type of tour, whether it be
12 residential, commercial or other, by selecting the name from the drop-down
13 menu 210. The affiliate also selects the number of photos to be presented
14 as part of the virtual tour through drop-down menu 211, and indicates
15 whether the photographs will be supplied by uploading them or by mailing
16 them. By selecting the appropriate upload or mail indicator, the affiliate
17 identifies the method for building the virtual tour with photographs. Once
18 the creating a new tour information has been input or selected, the affiliate
19 may select the "OK" button 212 to proceed to the tour information editing
20 screen, shown more fully in Figures 27, 28A, 28B, and 28C.
21
22
23

1 In the preferred embodiment of this invention the tour data or text
2 information is stored in a database or a memory area, and the photographs
3 are stored in a memory area.

4 The tour information editing screen display is reflected in Figures 27,
5 28A, 28B and 28C. It is from this tour information editing screen display
6 that most of the editing and creation of a virtual tour are accomplished, and
7 Figures 28A through 28C reflect a sample template for a data set to be
8 entered into, relating to a particular property unit. A data set may be a
9 variety of information chosen for the specific embodiment or application of
10 the embodiment, all within the contemplation of this invention.

11 In Figures 28A through 28C, tour information tab 220 has been
12 selected and provides the template for a basic data set about the property
13 unit, which in this case is a real property unit for sale. It will be
14 appreciated by those in the industry that there are numerous different items
15 which may be added or removed from the data set about the property, all
16 within the contemplation of this invention, with the preferred information
17 being shown in Figures 28A through 28C. The template may allow
18 information to be input in certain of the information boxes, while in others
19 allow it to be selected from a pre-selected list in a pull-down menu format.
20

21 In Figures 28A through 28C, it reflects the tour information in a field
22 column and in a data column, the field and data being related to a database
23

1 where the information is stored. The various fields shown in Figure 28A
2 relate to tour identification number and the tour identification information
3 box 230. The affiliate or agent identification number is input into
4 information box 231 and the price field has information box 232 receives
5 price data.

6 The property type may be selected from pull-down menu 233 which
7 is shown pulled down in Figures 30A and 30B, giving a plurality of
8 property types to select from to input the data into the template. Examples
9 of property types which may be selected are residential, commercial, travel,
10 rent, education, golf, entertainment, automobile, senior, industrial or
11 dealership. It will be appreciated that this list is no way by limitation, as
12 there are many other property types that may be used for real property and
13 for other types of property, all within the contemplation of the viewing
14 system provided by this invention.

15 Figure 28A further shows a field entitled "property sub-type" wherein
16 data may likewise be selected to input a data set about the property unit
17 reflected as tour number 102461. Figures 32A and 32B reflect a possible
18 pull-down menu to be used for the property sub-type data field box 234 and
19 lists such selections as residential, residential with acreage, lots and land,
20 waterfront, and others.

1 Figure 28A further illustrates a tour title information box 235 where
2 the affiliate may enter a title of the virtual tour being created. Information
3 box 236 in Figure 28B allows the affiliate to input address information
4 about the property unit and information boxes 237, 238 and 239 allow the
5 input of the zip code, city, state and region (box 240) of the particular
6 property unit in question. In the preferred embodiment, the affiliate inputs
7 the zip code and the city, state and region are automatically inputted by the
8 system, thereby removable the need for the affiliate to enter the data
9 manually. Information box-information box 241 (Figure 28B) allows the
10 input of information regarding the area-of-town-in which the property unit
11 is located.

12 Information in the number of bedrooms field may be selected by
13 clicking on the pull-down menu 242 and then selecting the applicable
14 number of bedrooms. In similar manner, data may be input into the
15 number of baths field by clicking on the pull-down menu 243 and then
16 selecting the appropriate number.

17 Figure 28B further illustrates other fields which may be used and
18 corresponding information boxes or pull-down menus to build the virtual
19 tour and receive the data to comprise a data set about the property unit.
20 Fields such as multiple listing service ("MLS") number, style of the property
21

1 unit, year the property unit was built, mortgage calculator link and list date
2 are also shown in Figure 28B.

3 Figure 28C shows additional database fields into which data can be
4 entered into the template, including a map link which provides a map of the
5 area and a location of the property unit on the map, a school link which
6 provides information about the applicable schools for the property unit, and
7 a database field for the selection of web sites used to showcase the virtual
8 tour. "Post changes" button 244 may be selected or clicked on to then
9 enter the changes, additions or edits made to the template as reflected in
10 Figures 28A, 28B and 28C. The virtual tour template creates a framework
11 for the entry of data and photographs.

12 Figure 29 is a block depiction of a diagram of the main tour
13 information editing screen display showing the pull-down menu for the
14 selection of property type information and is more fully shown in Figures
15 30A, 30B and 30C. Figures 30A and 30B are intended to show the pull-
16 down menu selections which are used for entry to comprise the data set for
17 the property unit in question.

18 Figure 31 is a block depiction of a diagram of the main tour
19 information editing screen display showing the pull-down menu and
20 selections available for the property sub-type database field, as reflected
21 more fully in Figures 32A, 32B and 32C. Other information has been input
22
23

1 into the various information boxes, which will then comprise a data set for
2 the property unit.

3 Figure 33 is a block depiction of a diagram more fully shown in
4 Figures 34A, 34B and 34C, of the main tour information editing screen
5 showing the drop-down menu selections for the style database field, showing
6 pull-down menu 246 and selections for ranch, bungalow, cape cod,
7 contemporary and colonial in the pull-down menu. If the affiliate selects
8 or clicks on the pictures tab 250 in Figure 28A, the screen display reflected
9 in Figures 35 and 36A through 36E will be retrieved to allow the affiliate
10 to name and upload photographs which will comprise the virtual tour.
11

12 Figure 35 is a block depiction of a diagram of the screen display one
13 encounters in an internet embodiment of this invention when selecting or
14 clicking on the "pictures" tab 250, as shown in Figure 28A (and other
15 figures), and as more fully shown in Figures 36A, 36B, 36C, 36D and 36E.

16 Figure 37 is a pop-up window which appears when the affiliate
17 selects the photo name by selecting it or clicking on it. The pop-up
18 window provides a list of pre-selected photograph names to choose from in
19 labeling the uploaded photograph. This selection may be used to edit or
20 change an existing photograph name.

21 Figure 36A allows the affiliate to select the number of photographs
22 to be included in the virtual tour by making a selection from pull-down
23

menu 180. Figure 36A further illustrates the first photo and accompanying data for the first photo which comprises part of the data set for this property unit. Photo tab label 181 indicates a front view of the house as what is shown, and that is what is also reflected in photograph 182.

If the affiliate desires to change the photo name, he or she can select or click on the photo label tab and a pop-up window will be retrieved which provides a listing of preselected photo names for potential inclusion in photo label tab 181. The pop-up window is shown more fully in Figure 37 and discussed below. During the initial creation of a virtual tour, the first photo label tab 181 would be labeled "first photo" and the affiliate would need to choose which photo to use as the first photograph and the corresponding photo name to place within tab 181.

Figure 36B illustrates more of the photograph and text editing screen display and includes photograph 185 of a kitchen area and photo name 186 indicates it as a kitchen area. The affiliate would next add text or data to the data input box 187 to provide information relating to the image of the kitchen area. If the affiliate desires to change or alter photograph 185, selecting or clicking on upload photo button 211 would bring an upload of photo pop-up window to the screen to allow a new photograph to be designated for this location.

A sample upload of photograph pop-up window is illustrated in Figure 38 and described more fully below. The remainder of the screen display illustrated on Figures 36A through 36E are similar to that indicated for photo number 2 for the kitchen area. In Figure 36E, room number eight (8) is indicated as the photo name and remains to be completed by the affiliate. If the affiliate chooses to only use seven photographs, he or she would then go up to pull-down menu 180 and change the number of photographs. Any additional views and accompanying data text may be input for the property unit to complete the designated areas for photograph and accompanying data text for room number 8 and for room number 9.

Figure 37 is an embodiment of an exemplary pop-up window 189 which can provide pre-selected names to place on the photograph label tabs, such as photograph label tag 181 shown in Figure 36A. In order to select a pre-selected photograph label to place in a photograph label tab, the affiliate would simply select or click on the photograph label tab 181, which would bring up the pop-up window 189 screen display with the pre-selected labels contained thereon. By selecting or clicking on a particular pre-selected label or name, this causes that label or name to be placed within the tab which had previously been selected by the affiliate and which caused the pop-up window 189 to appear.

1 Figure 38 is an "upload a photograph" pop-up window 188 which
2 would become displayed when an affiliate would select or click on an
3 upload photo button, such as upload photo button 190 shown in Figure 36A.
4 Selecting the upload photo button 190 would cause the pop-up window 188
5 shown in Figure 38 to appear, and this then allows the affiliate to input the
6 file location of the photograph in file information box 192. The affiliate
7 may select or click on browse button 193 to browse various memory areas
8 to select the appropriate photograph file from those areas.

9
10 The pop-up window 188 also allows the affiliate to identify the nature
11 of the photo, i.e., whether it is a standard photograph, a panoramic or extra-
12 wide photograph, 360 degree panoramic photograph, or a 360 degree IPIX
13 photograph. IPIX is a type of photograph by IPIX Corporation. Once the
14 photograph file has been identified and the photo type selected, the affiliate
15 would select the "OK" button 194 to cause the photograph to be uploaded
16 into the designated location on the screen display, such as photograph
17 window 182 in Figure 36A. This viewing system gives the affiliate the
18 option to input multiple types of photographs into the same virtual tour
19 template, namely a still photograph, an over-sized photograph, a movable
20 photograph, a 360 degree panoramic photograph, a panoramic photograph
21 less than 360 degrees, as can be seen from the accompanying drawings.

1 An alternative or complementary embodiment allows the affiliate to
2 email the photograph to the web server computer 110 instead of directly
3 uploading it from the affiliate computer, which is more fully explained
4 below in connection with Figures 62, 63, 64 and 65. In the alternative
5 embodiment illustrated in Figures 62, 63, 64 and 65, the process of e-
6 mailing the photograph to the web server 118 where the virtual tour is
7 located is considered herein to be uploading that photograph.

8 If the affiliate selects or clicks on any particular photograph which
9 has already been uploaded into the viewing system, as shown in Figures 36A
10 through 36E, it will cause a pop-up window 201 to be displayed in Figure
11 39. The pop-up window is to allow the affiliate to adjust or tune the
12 photograph selected. The affiliate may choose to edit the JPEG file quality
13 by changing the number in the JPEG quality information box 202 and/or
14 may change the brightness in the photograph by inputting into brightness
15 information box 203 a different brightness setting. Once the subject
16 photograph has been sufficiently tuned or edited, the affiliate may select the
17 "accept new photo" button 204 to incorporate the edited photograph back
18 into the screen display of the pictures in the virtual tour as more fully
19 reflected in Figures 36A through 36E.

20
21 Figure 40 is a block depiction of the main tour information editing
22 screen display, with the number of photos pull-down menu selected and
23

1 being utilized to select the number of photographs to be included in the
2 virtual tour of the subject property unit. Figures 41A and 41B more fully
3 illustrate the screen display with the pull-down window 180 in the pulled
4 down position. Another advantage and feature of this property viewing
5 system and this invention is the creation of brochures or flyers using part
6 or all of the data set and photographs inputted for the virtual tour by
7 selecting the brochure info tab 251 on the screen display shown in Figure
8 28A.

9 Figures 43A and 43B show the screen display depicted in the block
10 diagram in Figure 42. Figure 43A illustrates a first brochure template 300,
11 a second brochure template 301, and a third brochure template 302, each
12 having a different format and each incorporating part or all of the data set
13 inputted for the tour for the subject property unit and each incorporating
14 one or more photographs from the pictures uploaded for the virtual tour.
15 The affiliate is able to select the brochure type or types desired for
16 promotion of the property unit.

18 Figure 45A illustrates brochure template 300 (shown in Figure 43A)
19 in larger display form, illustrating a sample format for a property unit
20 brochure. For the subject property, the photograph 302 in Figure 45A was
21 taken from photograph 182 in Figure 36A where the photograph was
22 uploaded. Photograph 303 from brochure template 300 is photograph 185
23

1 from Figure 36B and which was input for the virtual tour and additionally
2 incorporated into brochure template 300. It will be appreciated by those
3 skilled in the art that the affiliate may also be given the option to upload
4 or e-mail a different or a non-tour photograph for inclusion within in the
5 brochure.

6 The remaining data 305 illustrated in Figures 45A and 45B is taken
7 from the property data set input to create the virtual tour of the property
8 unit. Brochure template 300 may be printed and used by the affiliate in the
9 promotion of the property unit or the promotion of a time unit of the
10 property unit, or the web page which brochure template 300 represents may
11 be e-mailed to potential business associates or customers of the affiliate in
12 order to further promote the property unit.

13 Figure 46 is a block depiction of the screen display represented by
14 Figures 47A and 47B and is a second brochure template 310 of the subject
15 property unit, illustrating photograph 311, photograph 312, and photograph
16 313, all of which are photographs utilized in the virtual tour and uploaded
17 in the creation of the virtual tour. The data 314 shown on brochure
18 template 310 was taken from the data set for the property unit in question.

19 Figure 48 is a block depiction of the brochure screen display
20 illustrated in Figures 49A and 49B of a property brochure template 320.
21 This is a third option for a property brochure which includes photograph
22

1 321 and data 322. The photograph 321 and the data 322 were taken from
2 the photographs entered for the virtual tour for the subject property, and the
3 data was taken from the data set for the property unit.

4 Figure 50 is a block depiction of a diagram of the purchase screen
5 display wherein the affiliate initiates the purchase of the virtual tour, selects
6 advertising and methods of providing text, which is self explanatory from
7 the review of Figures 51A and 51B. The affiliate may select "printable
8 invoice" button 333 and will be provided an invoice for the purchase of the
9 virtual tour and listing. The tour invoice is more fully shown in Figure 52
10 and Figures 53A, 53B and 53C. The tour invoice may be printed by the
11 affiliate and provides basic information regarding the tour, what was
12 purchased, billing information, property description and any other information
13 desired.

14 Figure 53C provides a credit card information section to accomplish
15 an electronic commerce transaction, wherein the affiliate can fill in credit
16 card information to pay for the virtual tour, all of which is well known in
17 the trade and will therefore not be discussed in any further detail.

18 Figure 54 figuratively illustrates one way to visualize or provide a
19 movable photograph as part of a virtual tour. The preferred, movable
20 photograph 370 is made to move by a java applet which provides the
21 photograph 370 in the desired browser window 371, and then provides a
22 photograph 370 in the desired browser window 371, and then provides a
23

way to appear to make it move. The preferred size of the browser window
371 is 270 pixels by 450 pixels, whereas the size of the photograph 370 is
larger than the browser window 371 size.

When the photograph is uploaded or e-mailed and then uploaded
(depending on the alternative chosen), the affiliate is asked to identify the
type of photograph, as is more fully explained in relation to Figure 38
above.

While this is the preferred way, i.e. using a java applet, it will be
appreciated by those skilled in the art that there are other known ways to
accomplish this, such as without limitation, through the use of a floating
frame reference, or the use of a program plugin.

Since movable photographs or the appearance of a movable
photograph is known, it will not be discussed in significant detail.
Furthermore, the java applet source code is set forth in the microfiche
appendix being filed herewith. The microfiche contains seventy nine pages
of computer source code comprising one embodiment of the computer
readable instructions which may be used to practice an embodiment of this
invention, and which are hereby incorporated into this specification by this
reference.

Figure 55 is an elevation view of a panoramic photograph 400 of the
front of a property unit 402 for which a virtual tour is desired. The

1 photograph 400, as digitized, is larger than the size of the viewer window
2 401 in the browser. This invention provides for a movable photograph 400
3 and the java applet routines causes the underlying image to move relative
4 to the viewer window 401, thereby appearing to the viewer that he or she
5 is movable his or her head to view the property.

6 Figure 55 also figuratively show splice or stitch lines 404 where more
7 than one actual photograph was digitized and the multiple photographs were
8 stitched or spliced together. It will be appreciated in the art that there are
9 numerous known ways to achieve a panoramic photograph, including by
10 stitching or splicing, using a panoramic camera which produces these in a
11 single photograph, or by using other types of cameras and film which are
12 well known in the industry.

13
14 There are numerous well known computer software programs which
15 perform the stitching or splicing of photographs together, including
16 PhotoVista by Live Picture, as one example.

17 When it comes to panoramas, the size of the digital file is very
18 important and too large of a photograph may take too long to load. This
19 may cause potential clients or buyers to become irritated and possibly move
20 on to other property or other search sites. On the other hand, some clients
21 and potential clients look for property units that have a panorama because
22 it gives them a better understanding for what they're seeing.

1 The size of the photograph should be at least 270 pixels in height to
2 fill the viewer window, and if it is taller than this, the viewer or client may
3 scroll the entire photograph using the movable photograph feature of this
4 invention.

5 When taking a panoramic photograph in a series of photographic
6 views, the affiliate preferably should leave approximately twenty percent
7 (20%) overlap from one photograph to the next so that the photographs may
8 be spliced or stitched together. It is important that the camera be kept
9 level of all times when taking panoramic photographs for splicing together.
10

11 If possible, a tripod should be used.—If the internet browser utilized by the
12 viewer is java compatible, the panoramic photographs will automatically
13 launch into motion and can be navigated by the mouse of the user, upon
14 the proper identification upon uploading the photograph, as described above.

15 As bandwidth is increased over the internet or other networks, it will
16 allow larger photographs and video taping of properties, all within the
17 contemplation of this invention.

18 In the preferred embodiment, if a movable picture is being viewed,
19 the client may move the mouse arrow in the viewer window to cause the
20 photograph to move relative to the viewer window, and in the direction of
21 the side of the photograph where the mouse pointer is moved.
22

This is figuratively illustrated in Figure 56. Panoramic photograph 410 is broken into sections, and when the mouse pointer is placed in section 411 the photograph 410 appears to move to the right so that more of the left side of the photograph 410 may be viewed, analogous to the viewer turning their head to the left. The further to the left the mouse pointer is moved, the faster the photograph 410 appears to move the right.

When the mouse pointer is moved into section 412 it causes the photograph 410 to appear to move downwardly to appear that the viewer is looking up or seeing more of the top of the photograph 410. The higher up in section 412 the mouse pointer is moved, the faster the photograph 410 appears to move downward.

The photograph will actually start to move when the mouse pointer is within the middle section of the photograph 410, but off from center in the horizontal direction.

Similarly, when the mouse pointer is placed in section 413, the photograph moves to the left, and when the mouse pointer is moved into section 414, the photograph appears to move upward so the viewer may see more of the bottom of the photograph.

Figures 57 through 60 are a partial example of a virtual tour of a property unit. Figure 57 illustrates the virtual tour page 500, with the large viewing window 501 for viewing the various view displayed, depending on

which tab above is selected. In the example shown, eleven tabs are illustrated: master tab 503; master bath tab 504; neighborhood tab 505; brochure 506; map tab 507; front tab 508; kitchen tab 509; dining tab 510; second dining tab 511; golf course tab 512; and family tab 513. Each tab represents a link to another photograph or view of the property unit with accompanying data.

In the view shown, photograph 502 is the front view shown. In order to go directly from any view or photograph in the virtual tour to any other photograph or image, the viewer need only select or click on the desired tab. For example, if the viewer wants to view the kitchen photograph 520 and accompanying text, he or she would simply click on the kitchen tab 509, and the view shown in Figure 58 would appear.

Similarly, if the viewer wanted to look at a view of the dining room photograph 521, he or she would click on the dining tab 511, and the screen display shown in Figure 59 would appear. Note that the dining photograph 521 is a larger than standard photograph and is a panorama photograph (or movable photograph), as that term is used herein. The asterisk next to the name on the tabs indicates that the photograph is a movable photograph or panorama photograph versus merely a still photograph. In Figure 57, the master tab 503 links to a movable photograph, as indicated by the asterisk.

If the viewer of Figure 59 desired to see the master bathroom, he or she would click on the master bathroom tab 504 and the bathroom photograph 522 shown in Figure 60 would be displayed.

The utilization of such a tab system allows all of the photographs from the same property unit to be viewed with ease, enabling the viewer to move directly from one photograph to any other makes the virtual tour much more pleasing to view.

It will be appreciated by those in the property management, travel and vacation-rental industries, that there are other embodiments of the present invention which may be utilized in those industries. For example, one embodiment or application of this invention is in the rental or vacation industry. In that embodiment, a rental agency has certain occupation time units available for its rental property, and has a need to provide virtual tours accessible over the internet to potential and existing customers.

In order to avoid in the cost of photographing, uploading and providing a virtual tour on a website or web server, the property manager may exchange one or more of the time units in his or her property unit, in consideration for the construction of a virtual tour of the property, and/or for maintaining the virtual tour onsite available for viewing by persons having access to the public communications network.

Figure 61 illustrates in block diagram form an example of one possible embodiment of the invention wherein one or more available time units 600 for a property unit 599 are exchanged in consideration for creating and/or maintaining or posting a virtual tour 601 posting of the property unit on a webserver 602 available over a public communications network such as the internet 603. Client computers 604 and affiliate computers 598 may then be connected to virtual tour of properties via the public communications network, to tour the property unit.

Figure 62 is a pop-up window screen display of an Insert Photo which is prompted by selecting or clicking on the Upload Photo buttons described herein, giving the affiliate the option to either directly upload the photograph or to email it as an attachment to the virtual tour web site, as part of step P9.

The term "upload a photo" as used herein is intended to cover, without limitation, both the uploading of the photograph and the e-mailing of the photograph, as set forth herein.

In Figure 62, the affiliate is presented with pop-up window 850 in order to insert a photograph into a window of a virtual tour of a property unit; the pop-up window 850 giving the affiliate two options, namely to directly upload 854 or to email a photo 853. If the affiliate directly

1 uploads the photograph, he or she selects the "upload a photo now" button
2 852 and follows the procedure outlined above with respect to step P9.

3 If the affiliate has chosen to email the photograph, it would be
4 received by the web server 118 (shown in Figure 1) and when the affiliate
5 then chooses the "pick an e-mailed photo" button shown in the screen
6 display in Figure 62, the affiliate will be presented with pop-up window 860
7 illustrated in Figure 63. The system keys on the address from which the
8 photograph was e-mailed (as it may come from one or more sources), and
9 provides the affiliate a list or viewing of those photographs which came
10 from that e-mail address.

11 Figure 63 further reflects viewing box 863 in which a list of source
12 email addresses are listed, which in the example shown, is only one source
13 address 863, namely "herb@tours.net." The affiliate may then select the
14 "view photos" button 864 to review thumbnail photographic depictions of
15 those photographs which have been e-mailed to the web server from the
16 selected email address.

18 If the affiliate selects the "view photos" button 864, he or she is
19 provided with thumbnails such as thumbnail photograph 871 and thumbnail
20 photograph 873 shown in Figure 64, which are identified by their file name
21 100316B.jpg (item 872) and file name 100316D.jpg (item 874). The
22 photograph naming convention utilized is the combination of the six digit
23

1 tour identification number combined with a letter, "A" representing the first
2 photograph in the tour, "B" representing the second photograph in the tour,
3 and so on.

4 Once the affiliate selects one of the e-mailed photographs, the pop-up
5 window 880 reflected in Figure 65 will be displayed, showing the selected
6 photograph 881, along with its name, and selection options for the affiliate
7 to identify whether the photograph is a standard photograph 882, a
8 panoramic (extra-wide) photograph 883 or a 360 degree panoramic
9 photograph 884. Once the proper photograph is displayed and the type of
10 photograph identified, the affiliate selects the OK button 885 and the
11 photograph is copied from the web server to the one or more memory areas
12 where the tour photographs are stored.
13

14

15 In compliance with the statute, the invention has been described in
16 language more or less specific as to structural and methodical features. It
17 is to be understood, however, that the invention is not limited to the
18 specific features shown and described, since the means herein disclosed
19 comprise preferred forms of putting the invention into effect. The invention
20 is, therefore, claimed in any of its forms or modifications within the proper
21 scope of the appended claims appropriately interpreted in accordance with
22 the doctrine of equivalents.
23